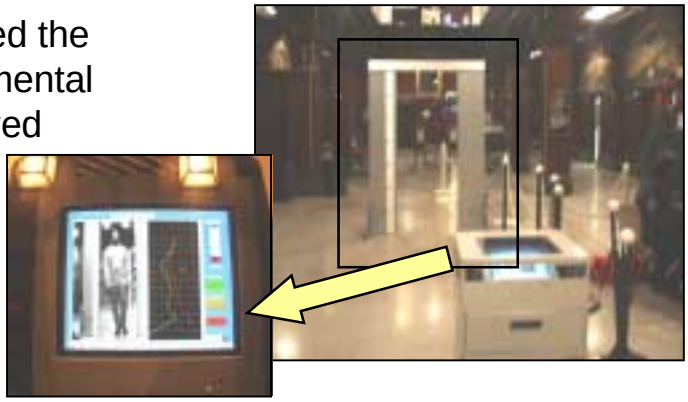
NIJ

OFFICE OF SCIENCE & TECHNOLOGY

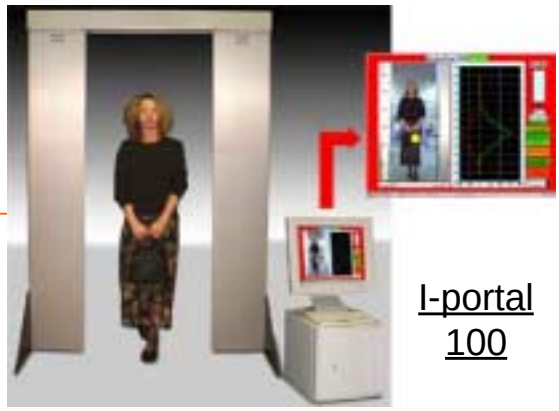
Electromagnetic Portal for Concealed Weapons Detection

Project Description:

The National Institute of Justice sponsored the Idaho National Engineering and Environmental Laboratory (INEEL) to develop an improved weapons detection portal which employs fluxgate magnetometers. The magnetometers detect anomalies in the earth's magnetic field caused by magnetic material in objects carried by individuals. Most weapons contain ferrous materials that are magnetic. This approach, because it will not alert on such innocuous objects as keys, significantly reduces the false alarm rate compared to currently available devices that tend to detect all metal objects. It can detect weapons with even a small steel content, such as found in the "Exacto" knives used by hobbyists.



SecureScan 2000 installed in the lobby of Washington Irving HS, NYC School System



I-portal 100

Status:

The portal was commercialized by Milestone Technologies as the "SecureScan 2000." In Jan.2001, representatives from the National Law Enforcement and Corrections Technology Center (NLECTC) evaluated the portal in school security applications with the New York City Public School System. The portal detected items missed by other weapons detection systems, such as razor blades concealed in student's mouths. NIJ also provided a portal for demonstration with the FAA. A second generation of this technology is now being marketed by Quantum Magnetics as the *i-portal 100.*

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